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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/735,008

12/12/2003

Qiong Cheng

CL2028USNA

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23906

7590

05/25/2006

E I DU PONT DE NEMOURS AND COMPANY
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4417 LANCASTER PIKE
WILMINGTON, DE 19805

EXAMINER

SAIDHA, TEKCHAND

ART UNIT

PAPER NUMBER

1652

DATE MAILED: 05/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/735,008		CHENG ET AL.	
	Examiner		Art Unit	
	Tekchand Saidha		1652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-16 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. **Restriction/ Election**

Restriction to one of the following inventions is required under 35 U.S.C. 121:

Group 1, claim(s) 1-10, 14 & 16 (all in part), drawn to a carotenoid overproducing microorganism comprising a disrupted *deaD* gene, and a method of producing a carotenoid, classified in class 435, subclass 67.

Group 2, claim(s) 1-10, 14 & 16 (all in part), drawn to a carotenoid overproducing microorganism comprising a disrupted *mreC* gene, and a method of producing a carotenoid, classified in class 435, subclass 67.

Group 3, claim(s) 1-10, 14 & 16 (all in part), drawn to a carotenoid overproducing microorganism comprising a disrupted *yhfE* gene, and a method of producing a carotenoid, classified in class 435, subclass 67.

Group 4, claim(s) 11-13, 15-16 (all in part), drawn to a carotenoid overproducing microorganism comprising a mutation in the *thrS* gene as set forth in SEQ ID NO: 35, and a method of producing a carotenoid, classified in class 435, subclass 67.

Group 5, claim(s) 11-13, 15-16 (all in part), drawn to a carotenoid overproducing microorganism comprising a mutation in the *rpsA* gene as set forth in SEQ ID NO: 37, and a method of producing a carotenoid, classified in class 435, subclass 67.

Group 6, claim(s) 11-13, 15-16 (all in part), drawn to a carotenoid overproducing microorganism comprising a mutation in the *rpoC* gene as set forth in SEQ ID NO: 38, and a method of producing a carotenoid, classified in class 435, subclass 67.

Group 7, claim(s) 11-13, 15-16 (all in part), drawn to a carotenoid overproducing microorganism comprising a mutation in the *yjeR* gene as set forth in SEQ ID NO: 39, and a method of producing a carotenoid, classified in class 435, subclass 67.

Group 8, claim(s) 11-13, 15-16 (all in part), drawn to a carotenoid overproducing microorganism comprising a mutation in

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the *rhoL* gene as set forth in SEQ ID NO: 41, and a method of producing a carotenoid, classified in class 435, subclass 67.

2. Each of the Invention of Groups 1-8 employ a distinct gene for expression in a host cell for producing a carotenoid. Therefore, each of the Inventions of Groups 1-8 are patentably distinct from each other.

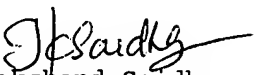
3. Applicants are advised that the reply to this requirement MUST include an election of the invention to be examined, even though the requirement be traversed (37 CFR 1.143).

4. Applicants are reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tekchand Saidha whose telephone number is (571) 272 0940. The examiner can normally be reached on 8.30 am - 5.00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapu Achutamurthy can be reached on (571) 272 0928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Tekchand Saidha
Primary Examiner, Art Unit 1652
Recombinant Enzymes, E03A61 Rensen Bld.
400 Dulany Street, Alexandria, VA
Telephone : (571) 272-0940
May 19, 2006